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Dan Kikinis

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EXAMINER

USTARIS, JOSEPH G

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

| | | | |
|------------------------------|--------------------------------------|---------------------------------------|--|
| Office Action Summary | Application No. 09/661,164 | Applicant(s) KIKINIS ET AL. | |
| | Examiner JOSEPH G. USTARIS | Art Unit 2623 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 April 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19, 26-34, 37 and 38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19, 26-34, 37 and 38 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 29, 2008 has been entered.

Response to Arguments

2. The objection to claims 7, 30, 31, 34, and 36 is now withdrawn in view of the amendments.

Applicant's arguments with respect to claims 1-19 and 26-34 have been considered but are moot in view of the new ground(s) of rejection.

Applicant argues with respect to the 35 U.S.C. 101 rejection of claims 26-34 that the claims are directed to a machine readable storage medium not computer readable media. However, the Examiner points out that on page 7 line 22 thru page 8 line 4 of the specification defines machine-readable media to include electrical, optical, acoustical, and other forms of propagated signals (e.g. carrier waves, infrared signals, digital signal, etc.). Because the full scope of the claim as properly read in light of the disclosure encompasses non-statutory subject matter, the claim as a whole is non-statutory. Therefore, the examiner maintains the 35 U.S.C. 101 rejection.

Claim Rejections - 35 USC § 101

3. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

The USPTO "Interim Guidelines for Examination of Patent Applications for Patent Subject Matter Eligibility" (Official Gazette notice of 22 November 2005), Annex IV, reads as follows:

In contrast, a claimed computer-readable medium encoded with a computer program is a computer element which defines structural and functional interrelationships between the computer program and the rest of the computer which permit the computer program's functionality to be realized, and is thus statutory. See Lowry, 32 F.3d at 1583-84, 32 USPQ2d at 1035.

Claims that recite nothing but the physical characteristics of a form of energy, such as a frequency, voltage, or the strength of a magnetic field, define energy or magnetism, per se, and as such are nonstatutory natural phenomena. O'Reilly, 56 U.S. (15 How.) at 112-14. Moreover, it does not appear that a claim reciting a signal encoded with functional descriptive material falls within any of the categories of patentable subject matter set forth in Sec. 101.

... a signal does not fall within one of the four statutory classes of Sec. 101.

... signal claims are ineligible for patent protection because they do not fall within any of the four statutory classes of Sec. 101.

4. Claims 26-34 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter as follows. Claim 26 is drawn to functional descriptive material recorded on a machine-readable storage medium. Normally, the claim would be statutory. However, the specification, at page 8 defines the claimed computer/machine readable medium as encompassing statutory media such as a "ROM", "hard drive", "optical drive", etc, as well as ***non-statutory*** subject mater such as a "signal".

A "signal" embodying functional descriptive material is neither a process nor a product (i.e., a tangible "thing") and therefore does not fall within one of the four statutory classes of § 101. Rather, "signal" is a form of energy, in the absence of any physical structure or tangible material.

Because the full scope of the claim as properly read in light of the disclosure encompasses non-statutory subject matter, the claim as a whole is non-statutory. The examiner suggests amending the claim to include the disclosed tangible computer readable media, while at the same time excluding the intangible media such as signals, carrier waves, etc. Any amendment to the claim should be commensurate with its corresponding disclosure.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1-6, 9-16, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reynolds et al. (US20010037500A1) in view of Gordon et al. (US20010014975A1) and Zigmond et al. (US006698020B1).

Regarding claim 1, Reynolds et al. (Reynolds) discloses a system (See Fig. 1) comprising a receiver (See Fig. 1, 100) configured to:

receive a broadcast stream (See Fig. 1, 110; paragraph 0025), a portion of the broadcast stream (See paragraph 0026; meta data component 114) having a first priority indicator (See paragraphs 0034-0036; wherein these triggers are found in the meta data component 114);

receive media separate from the broadcast stream (See Figs. 1 and 2, 142), the media having a second priority indicator (See paragraph 0037; the assigned priority value of the local meta data 142) greater than the first priority indicator (See paragraph 0037; the priority value of the local meta data is higher than the first priority indicator/value);

determine whether the first priority indicator is greater than the second priority indicator (See paragraphs 0033-0037; priority level); and

replace the portion of the broadcast stream with the separate media in response to determining that the first priority indicator is lower than the second priority indicator (See paragraphs 0033-0037; if the first priority indicator/level is lower than the second priority indicator/level then insertion is allowed for that trigger).

However, Reynolds does not explicitly disclose receiving a signal configured to modify the first priority indicator from a first priority to a second priority, modifying the first priority indicator from the first priority to the second priority in response to receiving the signal, and that the receiver is in a set top box.

Gordon et al. (Gordon) discloses a television distribution system. Gordon discloses receiving a signal (e.g. control signal) configured to modify the first priority indicator (e.g. priorities of the viewable data objects) from a first priority to a second priority and modifying the first priority indicator from the first priority to the second priority in response to receiving the signal (See paragraph 0029; dynamical priorities change in response to a control signal). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system

disclosed by Reynolds to receive a signal configured to modify the first priority indicator from a first priority to a second priority and modify the first priority indicator from the first priority to the second priority in response to receiving the signal, as taught by Gordon, in order to allow system to dynamically adjust how to distribute programs based on viewing trends and events (See paragraph 0007 and 0029).

Furthermore, Reynolds system would still compare the modified first priority indicator to the second priority indicator in order to determine whether substitution will still take place (See Reynolds paragraph 0037).

Zigmond et al. (Zigmond) discloses a similar insertion/triggering system. Zigmond discloses that the receiver is in a set top box (See Fig. 3; col. 7 lines 42-49, WebTV Box). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the receiver disclosed by Reynolds to be in a set top box, as taught by Zigmond, in order to allow the receiver to take on an easy form factor thereby allowing the receiver to easily be placed within a household (See col. 7 lines 37-49).

Regarding claim 2, wherein the first and second priority indicators comprise at least one of a number, a letter, and a symbol (See Reynolds paragraph 0034-0037).

Regarding claim 3, wherein the separate media and the broadcast stream are the same media (See Reynolds Fig. 1; they are both electrical signals, digital data, etc...).

Regarding claim 4, wherein the separate media and the broadcast stream are different media (See Reynolds paragraphs 0025-0026; Channel TV data vs. TV program).

Regarding claim 5, wherein an event triggers an insertion of the separate media into the broadcast stream (See Reynolds paragraph 0032-0037; the triggers cause the insertion).

Regarding claim 6, Reynolds in view of Gordon and Zigmond does not explicitly disclose that the event includes an arrival of an e-mail.

Official Notice is taken that it is well known in the art to notify the user of an arrival of an e-mail. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system disclosed by Reynolds in view of Gordon and Zigmond to notify the user of an arrival of an e-mail in order to increase the capabilities of the system thereby providing a means of notifying the user of various content.

Regarding claim 9, wherein the first and second priority indicators are user specified (See Reynolds Fig. 1; paragraph 0037; the local affiliate operator who sets the priorities of the system is the "user").

Regarding claim 10, wherein the set-top box is part of a television system (See Reynolds Fig. 1 and Zigmond Fig. 3) or radio system.

Claim 11 contains the limitations of claim 1 (wherein the system performs the method) and is analyzed as previously discussed with respect to that claim. Furthermore, Reynolds also discloses that the second priority indicator can also be lower than the first priority indicator (See paragraph 0037).

Claim 12 contains the limitations of claims 2 and 11 and is analyzed as previously discussed with respect to those claims.

Claim 13 contains the limitations of claims 3 and 11 and is analyzed as previously discussed with respect to those claims.

Claim 14 contains the limitations of claims 4 and 11 and is analyzed as previously discussed with respect to those claims.

Claim 15 contains the limitations of claims 5 and 11 and is analyzed as previously discussed with respect to those claims.

Claim 16 contains the limitations of claims 6 and 15 and is analyzed as previously discussed with respect to those claims.

Regarding claim 18, Reynolds further discloses wherein a plurality of priority indicators are each associated with a different portion of the first broadcast stream based on a geographic area (See Reynolds paragraphs 0028 and 0038).

7. Claims 7, 19, and 37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reynolds et al. (US20010037500A1) in view of Gordon et al. (US20010014975A1) and Zigmond et al. (US006698020B1) as applied to claims 1 and 11 above, and further in view of Blackketter et al. (US20020056129A1).

Regarding claim 7, Reynolds in view of Gordon and Zigmond does not disclose that the signal configured to change the first priority is programmed by a time mark.

Blackketter et al. (Blackketter) discloses a similar insertion/triggering system. Blackketter discloses that a signal (e.g. trigger) that is configured to change items is programmed by a time mark (e.g. time attribute) (See Figs. 4-6; time attribute 403, 503, and 603; paragraphs 0014-0015). Therefore, it would have been obvious to one of

ordinary skill in the art at the time the invention was made to modify the system disclosed by Reynolds in view of Gordon and Zigmond to have the signal configured to change the first priority indicator be programmed by a time mark (e.g. time attribute), as taught by Blackketter, in order to provide a better system for synchronizing various items with programming (See paragraphs 0014-0015).

Claim 19 contains the limitations of claims 7 and 11 and is analyzed as previously discussed with respect to those claims. Furthermore, the time mark (e.g. time attribute) is used for synchronizing the separate media insertion with the broadcast stream (See Blackketter paragraphs 0014-0015).

Claim 37 contains the limitations of claims 1 and 7 and is analyzed as previously discussed with respect to those claims.

8. Claims 8 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reynolds et al. (US20010037500A1) in view of Gordon et al. (US20010014975A1) and Zigmond et al. (US006698020B1) as applied to claims 1 and 11 above, and further in view of Bullock et al. (US 5,070,404).

Regarding claim 8, Reynolds in view of Gordon and Zigmond does not disclose that the priority indicators are associated with the broadcast stream using at least one of a pilot tone and a watermark.

Bullock discloses the use of cue code wherein each cue code comprises four DTMF tones as indicator (Col. 6, lines 43-Col. 7, lines 25). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to

modify Reynolds in view of Gordon and Zigmond with Bullock so to take the advantage of the uniqueness of each cue code for determining the presence of the stored data having an identifier corresponding to the cue signal and for providing an indication to the user of the presence of the stored data (Col. 2, lines 1-6).

Claim 17 contains the limitations of claims 8 and 11 and is analyzed as previously discussed with respect to those claims. Furthermore, Reynolds in view of Gordon and Zigmond discloses a plurality of priority indicators are each associated with a different portion of the broadcast stream (See Reynolds paragraphs 0028 and 0038).

9. Claims 26-31, 33, and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Reynolds et al. (US20010037500A1) in view of Gordon et al. (US20010014975A1).

Regarding claim 26, Reynolds et al. (Reynolds) discloses a machine-readable storage medium tangibly embodying a sequence of instructions executable by the machine (See Figs. 1-4; Reynolds inherently has a machine-readable storage medium tangibly embodying a sequence of instructions executable by the system in order to successfully perform its functions) to perform a method for inserting media into a broadcast stream, the method comprising:

receiving a broadcast stream (See Fig. 1, 110; paragraph 0025) having a first priority indicator (See paragraphs 0034-0036; wherein these triggers are found in the meta data component 114), wherein the first priority indicator is associated with a portion of the broadcast stream (See paragraph 0026; meta data component 114);

receiving a separate media (See Figs. 1 and 2, 142) having a second priority indicator (See paragraph 0037; the assigned priority value of the local meta data 142) lower than the first priority indicator (See paragraph 0037; the priority value of the local meta data is lower than the first priority indicator/value);

determining whether the first priority indicator is greater than the second priority indicator (See paragraphs 0033-0037; priority level); and

in response to determining that the first priority indicator is lower than the second priority indicator, inserting the separate media into the broadcast stream (See paragraphs 0033-0037; if the first priority indicator/level is lower than the second priority indicator/level then insertion is allowed for that trigger).

However, Reynolds does not explicitly disclose receiving a signal configured to modify the first priority indicator from a first priority to a second priority and modifying the first priority indicator from the first priority to the second priority in response to receiving the signal.

Gordon et al. (Gordon) discloses a television distribution system. Gordon discloses receiving a signal (e.g. control signal) configured to modify the first priority indicator (e.g. priorities of the viewable data objects) from a first priority to a second priority and modifying the first priority indicator from the first priority to the second priority in response to receiving the signal (See paragraph 0029; dynamical priorities change in response to a control signal). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system disclosed by Reynolds to receive a signal configured to modify the first priority indicator

from a first priority to a second priority and modify the first priority indicator from the first priority to the second priority in response to receiving the signal, as taught by Gordon, in order to allow system to dynamically adjust how to distribute programs based on viewing trends and events (See paragraph 0007 and 0029).

Furthermore, Reynolds system would still compare the modified first priority indicator to the second priority indicator in order to determine whether substitution will still take place (See Reynolds paragraph 0037).

Claim 27 contains the limitations of claims 12 and 26 and is analyzed as previously discussed with respect to those claims.

Claim 28 contains the limitations of claims 13 and 26 and is analyzed as previously discussed with respect to those claims.

Claim 29 contains the limitations of claims 14 and 26 and is analyzed as previously discussed with respect to those claims.

Claim 30 contains the limitations of claims 15 and 26 and is analyzed as previously discussed with respect to those claims.

Claim 31 contains the limitations of claims 16 and 30 and is analyzed as previously discussed with respect to those claims.

Claim 33 contains the limitations of claims 18 and 26 and is analyzed as previously discussed with respect to those claims.

Claim 34 contains the limitations of claims 9 and 26 and is analyzed as previously discussed with respect to those claims.

10. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reynolds et al. (US20010037500A1) in view of Gordon et al. (US20010014975A1) as applied to claim 26 above, and further in view of Bullock et al. (US 5,070,404).

Regarding claim 32, Reynolds in view of Gordon discloses a plurality of priority indicators are each associated with a different portion of the broadcast stream (See Reynolds paragraphs 0028 and 0038). However, Reynolds in view of Gordon does not disclose that the priority indicators are associated with the broadcast stream using at least one of a pilot tone and a watermark.

Bullock discloses the use of cue code wherein each cue code comprises four DTMF tones as indicator (Col. 6, lines 43-Col. 7, lines 25). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Reynolds in view of Gordon with Bullock so to take the advantage of the uniqueness of each cue code for determining the presence of the stored data having an identifier corresponding to the cue signal and for providing an indication to the user of the presence of the stored data (Col. 2, lines 1-6).

11. Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Reynolds et al. (US20010037500A1) in view of Gordon et al. (US20010014975A1) and Zigmond et al. (US006698020B1) as applied to claim 1 above, and further in view of Robinett et al. (US006351474B1).

Regarding claim 38, Reynolds in view of Gordon and Zigmond discloses determining that the first priority indicator is greater than the second priority indicator

(See Reynolds paragraph 0037; the second priority indicator can also be lower than the first priority indicator). However, Reynolds in view of Gordon and Zigmond does not disclose that the determining is done prior to receiving the signal and delaying the insertion of the separate media into the broadcast stream until the first priority indicator is modified.

Robinett et al. (Robinett) discloses a television distribution system. Robinett discloses that the system is able to determine a change in PID mappings prior to receiving a new PMT or CAT. This reads on "determining prior to receiving the signal". Furthermore, Robinett discloses delaying the insertion of the changed PID mapping until the new/modified version of the PMT or CAT is available. This reads on "delaying the insertion of the separate media into the broadcast stream until the first priority indicator is modified" (See col. 32 line 56 – col. 33 line 7). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the system disclosed by Reynolds in view of Gordon and Zigmond to have the determining step done prior to receiving the signal and delaying the insertion of the separate media into the broadcast stream until the first priority indicator is modified, as taught by Robinett, in order to ensure that all the changes are made and properly recorded (See col. 32 line 56 – col. 33 line 7).

Conclusion

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to JOSEPH G. USTARIS whose telephone number is

(571)272-7383. The examiner can normally be reached on M-F 7:30-5 PM; Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher S. Kelley can be reached on 571-272-7331. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Joseph G Ustaris/
Primary Examiner, Art Unit 2623